

**Patent** [19]

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[54] AIR CLEANER

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[51] Int. Cl.⁶ A61L00920 ; A61L00901; B01D05386; F24F00700[57] **ABSTRACT**

PROBLEM TO BE SOLVED: To improve contact efficiency and to provide a high deodorizing effect by arranging a dust collecting part on the suction side of an air blower and arranging a deodorizing part, which is formed by opposing an adsorber with a photocatalyst and an excitation source for exciting the photocatalyst, on the discharge side on the other hand.

SOLUTION: When an air blower 10 is operated, air containing dust or the like and smell component is a room is sucked from a suction grill 2 into a casing 1. When passing the air through a high-performance dust filter 13 while being straightened, the dust or the like is almost removed, and viruses or bacteria are adsorbed, removed and inactivated by an antibacterial material. This dust removed air is sucked from an inlet 10a of the air blower 10, accelerated by an impeller 10b and discharged from an outlet 10c toward the upper deodorizing part. Then, air containing the smell component is efficiently contacted to an adsorber 6 with a photocatalyst and ventilated, the smell component is adsorbed by the adsorber, the photocatalyst is turned into excited state by light containing ultraviolet rays radiated from an ultraviolet lamp 7, and the smell component is efficiently decomposed and deodorized with the oxidizing power.

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